

# **CENTRAL PNEUMATIC® AIR IMPACT WRENCH AND RATCHET SET Model 92208**

## **ASSEMBLY AND OPERATION INSTRUCTIONS**



3491 Mission Oaks Blvd., Camarillo, CA 93011  
Visit our Web site at <http://www.harborfreight.com>

**TO PREVENT SERIOUS INJURY,  
READ AND UNDERSTAND ALL WARNINGS  
AND INSTRUCTIONS BEFORE USE.**

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**For technical questions and replacement parts, please call 1-800-444-3353**

## Specifications

Air Inlet	1/4"-18 NPT (All tools)
Maximum Operating Pressure	90 PSI (All tools)
<b>Air Ratchet</b>	
Dimensions	1-5/8" D x 10-3/8" L
Drive Size	3/8" Sq.
Maximum Torque Output	50 Ft. Lbs.
Air Consumption	4 CFM
No Load RPM	150 (Reversible)
<b>Impact Wrench</b>	
Dimensions	2-3/4" W x 7-1/4" L x 8" H
Drive Size	1/2" Sq.
Maximum Torque Output	240 Ft. Lbs.
Air Consumption	4 CFM
RPM	6,500 (Reversible)
BPM	1,020

## Save This Manual

You will need the manual for the safety warnings and precautions, assembly instructions, operating and maintenance procedures, parts list and diagram. Keep your invoice with this manual. Write the invoice number on the inside of the front cover. Keep the manual and invoice in a safe and dry place for future reference.

## Safety Warnings and Precautions

**WARNING:** When using tools, basic safety precautions should always be followed to reduce the risk of personal injury and damage to equipment.

### Read all instructions before using this product!

1. **Keep work area clean.** Cluttered areas invite injuries.
2. **Observe work area conditions.** Do not use machines or power tools in damp or wet locations. Don't expose to rain. Keep work area well lit. Do not use electrically powered tools in the presence of flammable gases or liquids.
3. **Keep children away.** Children must never be allowed in the work area. Do not let them handle machines, tools, extension cords, or air hoses.
4. **Store idle equipment.** When not in use, tools must be stored in a dry location to inhibit rust. Always lock up tools and keep out of reach of children.
5. **Use the right tool for the job.** Do not attempt to force a small tool or attachment to do the work of a larger industrial tool. There are certain applications for which this tool was designed. It will do the job better and more safely at the rate for which it was intended. Do not modify this tool and do not use this tool for a purpose for which it was not intended.
6. **Dress properly.** Do not wear loose clothing or jewelry as they can be caught in moving parts. Protective, electrically nonconductive clothes and nonskid footwear are recommended when working. Wear restrictive hair covering to contain long hair.

7. **Use eye and ear protection.** Always wear ANSI approved impact safety goggles. Wear a full face shield if you are producing metal filings or wood chips. Wear an ANSI approved dust mask or respirator when working around metal, wood, and chemical dusts and mists.
8. **Do not overreach.** Keep proper footing and balance at all times. Do not reach over or across running machines or air hoses.
9. **Maintain tools with care.** Keep tools clean for better and safer performance. Follow instructions for lubricating and changing accessories. Inspect tool cords and air hoses periodically and, if damaged, have them repaired by an authorized technician. The handles must be kept clean, dry, and free from oil and grease at all times.
10. **Disconnect air supply.** Disconnect air hose when not in use.
11. **Remove adjusting keys and wrenches.** Check that keys and adjusting wrenches are removed from the tool or machine work surface before connecting the tool.
12. **Avoid unintentional starting.** Be sure the trigger is released when not in use and before connecting to the air source. Do not carry any tool with your finger on the trigger, whether it is connected or not.
13. **Stay alert.** Watch what you are doing, use common sense. Do not operate any tool when you are tired.
14. **Check for damaged parts.** Before using any tool, any part that appears damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment and binding of moving parts; any broken parts or mounting fixtures; and any other condition that may affect proper operation. Any part that is damaged should be properly repaired or replaced by a qualified technician. Do not use the tool if the trigger does not operate properly.
15. **Guard against electric shock.** Prevent body contact with grounded surfaces such as pipes, radiators, ranges, and refrigerator enclosures.
16. **Replacement parts and accessories.** When servicing, use only identical replacement parts. Use of any other parts will void the warranty. Only use accessories intended for use with this tool. Approved accessories are available from Harbor Freight Tools.
17. **Industrial applications must follow OSHA guidelines.**
18. **Do not operate tool if under the influence of alcohol or drugs.** Read warning labels if taking prescription medicine to determine if your judgement or reflexes are impaired while taking drugs. If there is any doubt, do not operate the tool.
19. **Use proper size and type extension cord.** If an extension cord is required, it must be of the proper size and type to supply the correct current to the compressor without heating up. Otherwise, the extension cord could melt and catch fire, or cause electrical damage to the compressor. Check your air compressor's manual for the appropriate size cord.
20. **Maintenance.** For your safety, maintenance should be performed regularly by a qualified technician.

21. **Compressed air only.** Never use combustible gas as a power source.
22. **Use both hands.** The torque generated from these tools can cause the tools to break free of your grasp, causing serious injury and damage. Always operate the tools with both hands.
23. **WARNING:** The brass components of this product contain lead, a chemical known to the State of California to cause birth defects (or other reproductive harm). (California Health & Safety code § 25249.5, *et seq.*)

**Note: Performance of the compressor (if powered by line voltage) may vary depending on variations in local line voltage. Extension cord usage may also affect tool performance.**

**Warning:** The warnings, cautions, and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

## Unpacking

When unpacking, check to make sure all of the parts listed on pages 10-13 are included. If any parts are missing or broken, please call Harbor Freight Tools at the number on the cover of this manual as soon as possible.

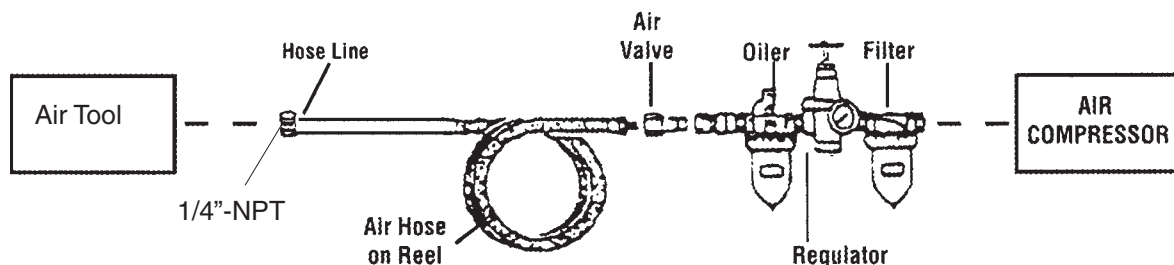
## Operation

**Note:** The directions below apply to both tools.

1. You will need to prepare a 1/4" air connector (not included) to connect to the Air Inlet on back of the air tool's handle. First, remove the plug from the Air Inlet. Then, wrap the 1/4" air connector with pipe thread seal tape before threading it into the Air Inlet. Connect the 3/8" ID Air Source Hose (not included) to the tool.

**Note:** If you are not using an automatic oiler system, before operation, add a few drops of Pneumatic Tool Oil to the airline connection. Add a few drops more after each hour of continual use.

2. Set the air pressure on your compressor to 90 PSI. Do not exceed the recommended air pressure of 90 PSI.
3. Check the air connection for leaks. Once you are satisfied there are no leaks, turn off the air compressor and disconnect the tool.



**Recommended Air Line Components**

For best service you should incorporate an oiler, regulator, and inline filter, as shown in the diagram above. Hoses, couplers, oilers, regulators, and filters are all available at Harbor Freight Tools.

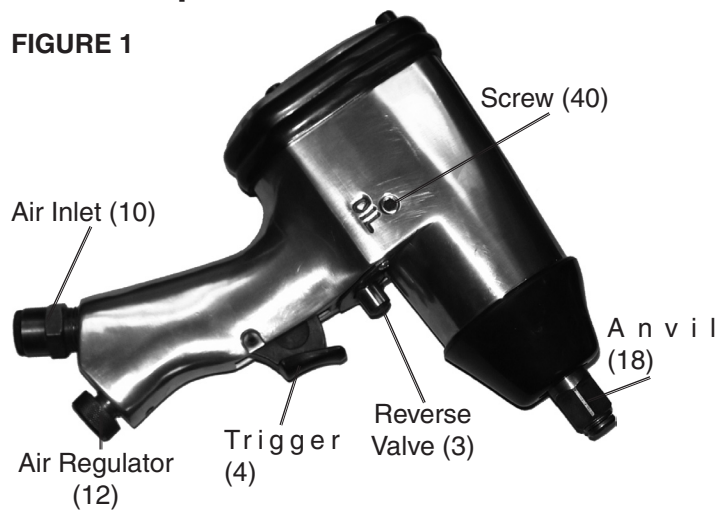
## Air Impact Wrench Operation

**Warning!!** This Impact Wrench supplies powerful torque and is designed to be operated with two hands. Failure to operate the Impact Wrench with two hands may result in serious injury.

**Note:** Turn off your air compressor and disconnect the air hose when you are changing sockets. After you attach the socket, attach the air hose and turn the air compressor on.

1. Select the appropriate size 1/2" drive socket for your needs.
2. Push and snap the socket onto the Anvil (18).

FIGURE 1



### Tightening

**Note:** Slide the Reverse Valve (3) toward the front of the Wrench.

3. If available, check the recommended torque specification for the nut. To accurately tighten hardware, use a torque wrench (not included) to tighten the nut to the proper setting instead of the impact wrench.
4. Tighten the nut as tight as you can by hand.
5. Place the socket over the nut you wish to tighten.
6. Grip the Impact Wrench firmly with two hands and gently squeeze the Trigger (4).

**Note:** With the Trigger (4) released, fine tune the air flow with the Air Regulator (12) knob.

**Note:** If the Impact Wrench cannot tighten the nut to your satisfaction, do not raise the air pressure on the compressor over 90 PSI. Pressures above 90 PSI will strip the workpiece and damage the tool. Use other appropriate methods and tools to tighten the nut.

7. When the nut is tightened, release the Trigger (4). Turn off the air compressor and disconnect the hose.
8. **Always use a torque wrench to make sure that any nuts/bolts tightened using this tool are tightened properly.** Due to the nature of impact wrenches, they cannot be relied upon to ensure proper tightening of nuts/bolts.

### Loosening

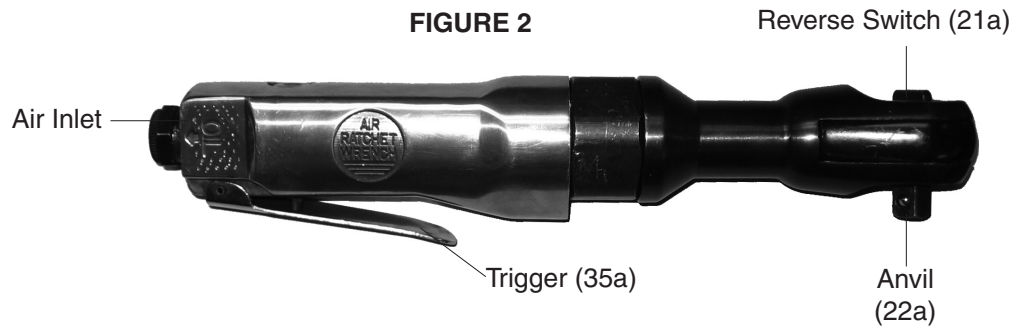
**Note:** Slide the Reverse Valve (3) toward the rear of the Wrench.

9. Place the socket over the nut you wish to loosen.
10. Grip the Impact Wrench firmly with two hands and gently squeeze the Trigger (4).

**Note:** If the Impact Wrench cannot loosen the nut, do not raise the air pressure on the compressor over 90 PSI. Do not attempt to loosen the nut with the Impact Wrench. Use other appropriate methods and tools to loosen the nut.

11. When the nut is loosened, release the Trigger (4). Turn off the air compressor and disconnect the hose.
12. If needed, remove the nut from the socket.

## Air Ratchet Operation



**Warning! Do not use a “cheater” or other extension to increase torque for this tool. Do not exceed the maximum torque rating on this tool.**

**Warning! Disconnect the Ratchet from the air source when attaching and removing sockets. There is no safety lock mechanism on this tool; always disconnect from the air source when not in use.**

Refer to the photograph above.

1. Attach a 3/8” drive socket to the Ratchet Anvil (22a).
2. By following the directions on page 4, attach the Ratchet to the air source hose.
3. Gently press the Trigger (35a) to activate the Ratchet. Do not force the unit; allow it to do the work for you. To change direction (loosen vs. tighten), stop the tool and move it away from the workpiece, then turn the Reverse Switch (21a).
4. To adjust the torque, readjust the air pressure by changing the setting on the compressor. **Do not exceed the maximum air pressure of 90 PSI for this tool at any time.**
5. When you are finished working, turn off the compressor and disconnect the air source hose.

**Warning!** There may still be air in the Ratchet. Squeeze the Trigger (35a) and activate the Ratchet to expel any air still inside the tool.

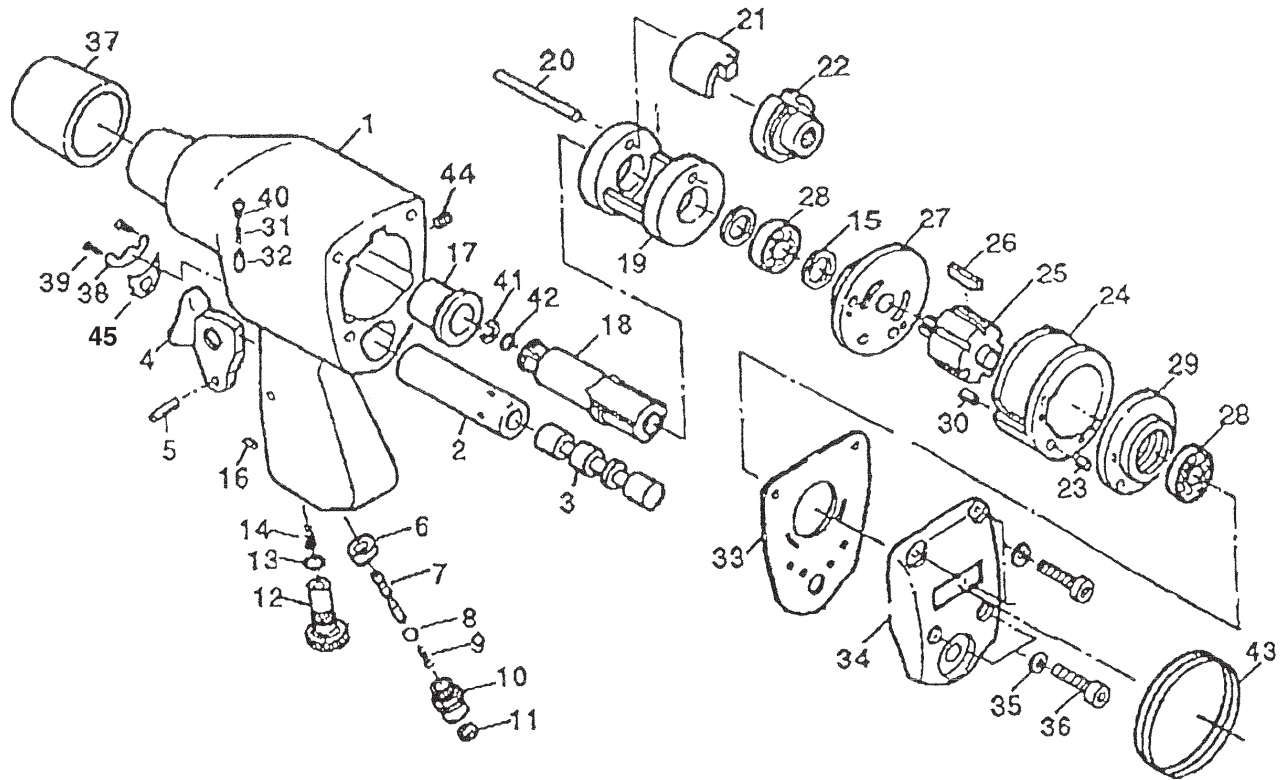
6. Remove the socket.

## Maintenance

1. Make sure the air tool is disconnected from the air hose before attempting any maintenance.
2. If you are not using an automatic oiler system, put a few drops of pneumatic tool oil through the air line before and after each use. During use, add a few drops every hour.
3. Wipe the Tool down with a lint free cloth after each use.
4. Make sure the tool’s body, especially the Anvil (22a / 18), is clear of dirt and debris. If possible, spray it with compressed air before each use.
5. **For the Impact Wrench:**  
Apply a few drops of oil to the oil entry port before each use. Remove the Screw (40), add the oil, then replace the Screw (40) - see **FIGURE 1**, page 5.



## Air Impact Wrench Assembly Diagram

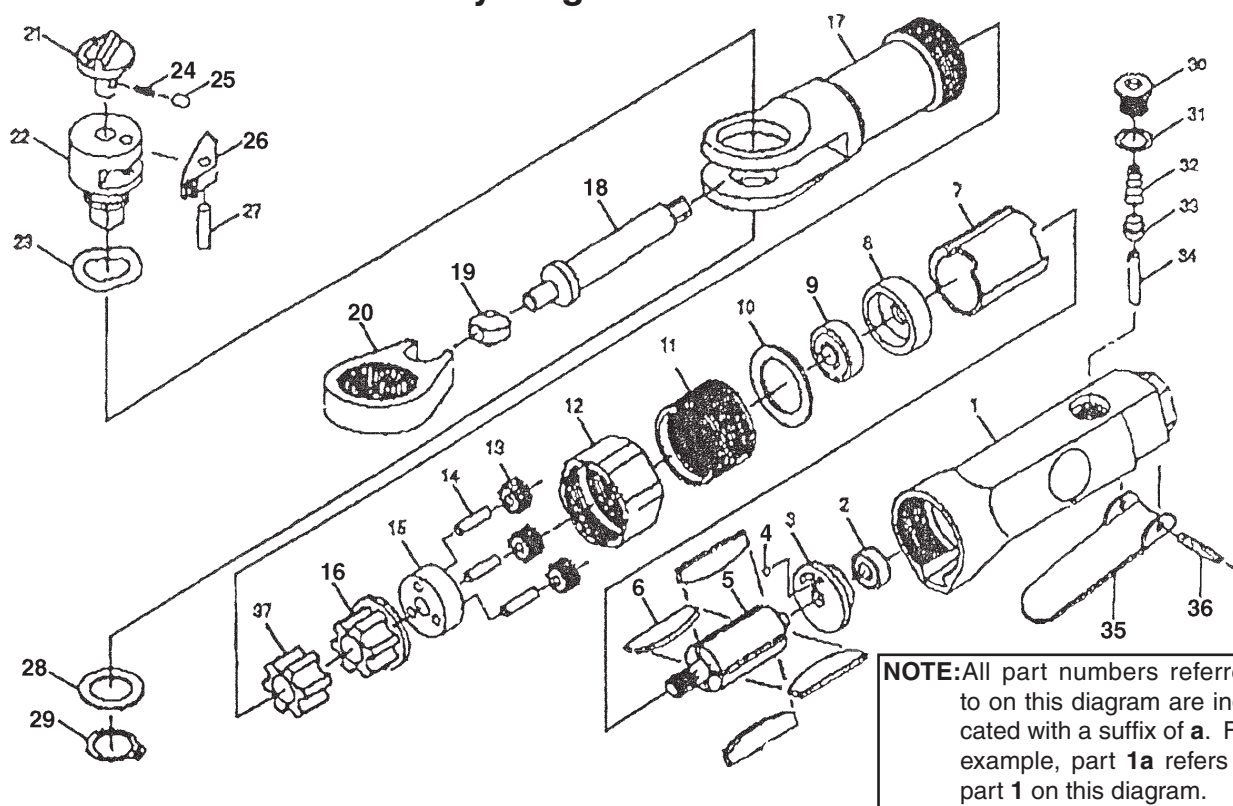


### Parts List

Part	Description	Part	Description	Part	Description	<b>Accessories</b> (not shown above)
1	Housing	16	Screw	31	Spring	
2	Valve Sleeve	17	Anvil Bushing	32	Pin	
3	Reverse Valve	18	Anvil ( $\frac{1}{2}$ " )	33	Rear Gasket	
4	Trigger	19	Hammer Cage	34	Rear Cover	
5	Pin	20	Hammer Pin	35	Washer	
6	Bushing	21	Hammer Dog	36	Screw	
7	Valve Stem	22	Drive Cam	37	Rubber Cover	
8	Steel Ball	23	Cylinder Pin	38	Exhaust Deflector	
9	Spring	24	Cylinder	39	Screw	
10	Air Inlet	25	Rotor	40	Screw	
11	Screen	26	Rotor Blade	41	Anvil Collar	
12	Air Regulator	27	Front End Plate	42	O-Ring	
13	O-Ring	28	Ball Bearing	43	Rubber Strap	
14	Spring	29	Rear End Plate	44	Screw	
15	Oil Seal	30	Pin	45	Brass Silencer	

**NOTE:** Some parts are listed and shown for illustration purposes only and are not available individually as replacement parts.

## Assembly Diagram A - Air Ratchet



### Parts List A

Part	Description	Qty.	Part	Description	Qty.	Part	Description	Qty.
1a	Housing	1	14a	Idler Gear Pin	3	26a	Ratchet Pawl	1
2a	Rear Bearing	1	15a	Idler Gear Plate	1	27a	Pin	1
3a	Rear Plate	1	16a	Bushing	1	28a	Washer	1
4a	Steel Ball	1	17a	Ratchet Housing	1	29a	Retaining Ring	1
5a	Rotor	1	18a	Shaft	1	30a	Valve Plug	1
6a	Rotor Blade	4	19a	Drive Bushing	1	31a	O-Ring	1
7a	Cylinder	1	20a	Ratchet Yoke	1	32a	Spring	1
8a	Front Plate	1	21a	Reverse Switch	1	33a	Valve Stem Bushing	1
9a	Front Bearing	1	22a	Ratchet Anvil	1	34a	Valve Stem	1
10a	Washer	1	23a	Wave Washer	1	35a	Trigger	1
11a	Thread Ring Gear	1	24a	Spring	1	36a	Spring Pin	1
12a	Clamp Nut	1	25a	Lock Pin	1	37a	Bushing	1
13a	Idler Gear	3						



## 90 Day Warranty

Harbor Freight Tools Co. makes every effort to assure that its products meet high quality and durability standards, and warrants to the original purchaser that this product is free from defects in materials and workmanship for the period of 90 days from the date of purchase. This warranty does not apply to damage due directly or indirectly, to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities, criminal activity, improper installation, normal wear and tear, or to lack of maintenance. We shall in no event be liable for death, injuries to persons or property, or for incidental, contingent, special or consequential damages arising from the use of our product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation of exclusion may not apply to you. This warranty is expressly in lieu of all other warranties, express or implied, including the warranties of merchantability and fitness.

To take advantage of this warranty, the product or part must be returned to us with transportation charges prepaid. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection verifies the defect, we will either repair or replace the product at our election or we may elect to refund the purchase price if we cannot readily and quickly provide you with a replacement. We will return repaired products at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then you must bear the cost of returning the product.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

### PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER NOR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.